

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 1, 12, 23, and 34 are pending in this application. Claims 3-11, 14-22, and 25-33 were previously canceled without prejudice or disclaimer and Claims 2, 13, and 24 are presently canceled without prejudice or disclaimer. Claims 1, 12, and 23 have been amended to incorporate subject matter from now canceled Claims 2, 13, and 24 that provide support for these amendments and Claims 1 and 34 have been amended to adopt the suggested recital that the previously recited "medium" is a --computer-readable medium--. Accordingly, it is clear that no new matter has been included in these amendments.

It is further submitted to be clear that this Amendment under 37 CFR § 1.116 should be entered as it reduces issues on appeal relative to the cancellation of Claims 2, 13, and 24. Further, as Claims 1, 12, and 23 have been amended to incorporate subject matter from these canceled claims, no new matter issues or any new search and/or other examination issues have been raised. Also, as Claims 1 and 34 have been further amended to adopt the suggestion in the outstanding Action that also raise no new search, new matter, or other examination issues and that further should remove the rejections of these claims based upon 35 U.S.C. § 101, entry of this amendment is further clearly in order.

The outstanding Office Action includes two rejection of Claims 1, 2, and 34 under 35 U.S.C. § 101, a rejection of Claims 1, 2, and 23 under 35 U.S.C. §103(a) as being unpatentable over Tanaka et al. (U. S. Patent No. 5,953,463, herein "Tanaka") in view of the Athitsos et al. article ("Distinguishing Photographs and Graphics on the World Wide Web," herein "Athitsos"), and a rejection of Claims 2, 13, 24, and 34 under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of the Athitsos in further view of Sekine et al. (U.S. Patent No. 5,754,710, herein "Sekine").

The two rejection of Claims 1, 2, and 34 under 35 U.S.C. § 101 that each allege non-statutory subject matter are respectfully submitted to be overcome by the present Amendment that cancels Claim 2 to render these rejections thereof moot and that adopts the suggestion at the bottom of page 3 of the outstanding Action to make it even clearer that remaining Claims 1 and 34 fully comply with 35 U.S.C. § 101. Accordingly, these rejections as applied to Claim 2 are submitted to be moot and withdrawal of the rejections of Claims 1 and 34 under 35 U.S.C. § 101 is respectfully requested.

The invention of amended independent Claims 1, 12, and 23, includes three different types of interpolation that are performed based upon a determination that a condition relating to each different type is satisfied. Thus, the determination that the image is a non-natural image results in the claimed first interpolation processing function being performed, the determination that the image is a natural image results in the second interpolation processing function being performed, and if the image data cannot be determined to be either a natural image or a non-natural image, both the first and second interpolation processing functions are performed and then the results from the first and second interpolation processing functions are blended. Thus, Applicants' invention is concerned with determining which of these three claimed types of interpolation processes to select according to a predetermined selecting process rule. This claimed approach insures improved efficiency.

In this regard, any blending interpolation process requires far more work to be done than when only one of the blended interpolation processes is used. In addition, the proper interpolation to perform is dependent on the type of image and could be either nearest neighbor type interpolation processing for text images or pattern matching for photo images. Applicants' invention provides improved efficiency relative to solving these problems by determining to use a first type of interpolation processing function executing pattern matching interpolation according to a predetermined rule when the image is a non-natural

image and a second type of interpolation processing when the image is a natural image with the need for blending processing of both the first and second types only being used if the image data cannot be determined to be either a natural image or a non-natural image.

Turning to the teachings of the primary reference to Tanaka, the outstanding Action has misinterpreted the teachings of Tanaka. In this regard, the processing associated with equation (1) presented above numbered line 25 of col. 3 of Tanaka is that of blending. While the weighting associated with the blending can change the amount of relative blending, there is always some degree of both types of interpolation being used, even “where the possibility of photographs is strong,” see col. 3, lines 58-64, for example. Thus, while the taught blending processing can approach providing a result like that of interpolation of first degree, it is still a processing blend “closer to interpolation of first degree” than to the other component of the blend. Furthermore, the amended independent claims each requires that the interpolation associated with a non-natural image, like the Tanaka suggested “characters,” must be “pattern matching interpolation according to a predetermined rule” and not “nearest neighbor interpolation” as suggested by Tanaka at col. 3, lines 41-45. Therefore, Tanaka does not teach or suggest the above-noted subject matter of base independent Claims 1, 12, and 23.

As none neither Athitsos nor Sekine cure the above noted deficiencies of Tanaka, it is respectfully submitted that independent Claims 1, 12, and 23, that now include subject matter from canceled dependent Claims 2, 13, and 24, all patentably define over Tanaka, Athitsos, and Sekine whether these references are considered alone or together in a proper combination.

In this last regard, the combination of reference teachings proposed in the outstanding Action is clearly improper as the modification of the region segmentation data of value X to perform as noted at col. 3, lines 11-21, of Tanaka would have to undergo a complete redesign

and operate using a different principle if the Athitsos combination of metric scores approach and the Sekine pattern matching were to be somehow be incorporated. This violates established precedent, see MPEP § 2143.01 VI as follows:

VI. THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

Accordingly, insofar as the outstanding rejection of previous Claims 1, 2, and 23 under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of the Athitsos and the outstanding rejection of Claims 2, 13, 24, and 34 under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of the Athitsos in further view of Sekine are pertinent to the presently amended claims that incorporates subject matter from canceled Claims 2, 13, and 24 into independent Claims 1, 12, and 23, these rejections are traversed for the reasons stated above.

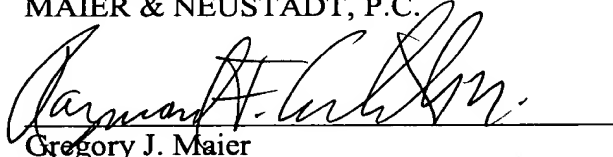
As the subject matter of dependent Claim 34 includes the subject matter of amended independent Claim 1, the rejection thereof based upon any or all of the above-noted references is traversed for the reasons noted above as to the parent independent claim. In addition, any such rejection is further traversed because none of the applied references teach or suggest the additional features of Claim 34.

Application No. 09/840,075
Reply to Office Action of 07/14/06

As no further issues are believed to remain outstanding in the present application, it is believed that this application is clearly in condition for formal allowance and an early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Gregory J. Maier", is written over a horizontal line.

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